

# SEARCH REQUEST FORM Scientific and Technical Information Center - EIC2800

Rev. 1/26/2006 This is an experimental format -- Please give suggestions or comments to Jeff Harrison, JEF-4B68, 22511.

Date 4/17/06 Serial # 10/848,784 Priority Application Date 4/30/01

Your Name M. Lewis Examiner # \_\_\_\_\_

AU 2822 Phone 571-292-1838 Room 5A30

In what format would you like your results? Paper is the default. ☒ PAPER ☐ DISK ☐ EMAIL

If submitting more than one search request form, please prioritize the searches in order of need.

Where have you searched so far on this case?

Circle: USPT DWPI EPO Abs JPO Abs IBM TDB

Other: \_\_\_\_\_

What relevant art have you found so far? Please attach citations or Information Disclosure Statements.

What types of references would you like? Please checkmark:

Primary Refs ☒ Nonpatent Literature ☐ Teaching Refs ☐  
Secondary Refs ☒ Foreign Patents ☐ Other ☐

Is this a "Fast & Focused Search" request? (Circle One) YES ☐ NO ☒

A "Fast & Focused Search" is completed in 2-3 hours (maximum). The search must be on a very specific topic and meet certain criteria. The criteria are posted in EIC2800 and on the STIC NPL Web Page at <http://uspto-a-patfr-2/siraapps/stic/npl/nplsearch.htm>

What is the topic, such as the novelty, motivation, utility, or other specific facets defining the desired focus of this search? Please include the concepts, synonyms, keywords, acronyms, registry numbers, definitions, structures, strategies, and anything else that helps to describe the topic. Please attach a copy of the abstract and pertinent claims.

Emitter

Problem: See page 1 lines 14-31  
Solution: 11 11 2 11 3-9

Flat emitter that has high  
current density and is able to ->

## Staff Use Only

Searcher: Paul Kim

Searcher Phone: 28244

Searcher Location: STIC-EIC2800, JEF-4B68

Date Searcher Picked Up: 4/20/06

Date Completed: 4/21/06

Searcher Prep/Rev Time: 6 hrs

Online Time: 8 hrs

## Type of Search

Structure (#) \_\_\_\_\_

Bibliographic ☐

Litigation ☒

Fulltext ☒

Patent Family ☒

Other ☐

## Vendors

STN ☒

Dialog ☒

Questel/Orbit ☐

Lexis-Nexis ☐

WWW/Internet ☐

Other ☐

21apr06 10:04:31 User291227 Session D35.7

File 342:Derwent Patents Citation Indx 1978-05/200621

8 CT=US 6096570  
0 CT=JP 2000011859  
S1 8 CT=(US 6096570 OR JP 2000011859)

File 347:JAPIO Dec 1976-2005/Dec(Updated 060404)

(c) 2006 JPO & JAPIO

File 350:Derwent WPIX 1963-2006/UD,UM &UP=200625

(c) 2006 Thomson Derwent

6 PN=US 6648710 + PN=US 6741016 + PN=US 6753544 + PN=US  
6758711 + PN=US 6882100 + PN=US 6902458 + PN=US 6911768 +  
PN=WO 2002103738 + PN=WO 2002103740 + PN=WO 200289168  
13 S1:S4  
S1 13 Serial: SD128

Reconnected in file OS 21apr06 10:12:32

File 342:Derwent Patents Citation Indx 1978-05/200621

```
      1 CT=EP 532019
     11 CT=US 5760417
      0 CT=JP 5074329
      0 CT=JP 5074332
      1 CT=EP 532019
      0 CT=DE 69223707
S2    12 CT=(EP 532019 OR US 5760417 OR JP 5074329 OR JP 5074332
      OR EP 532019 OR DE 69223707)
```

File 347:JAPIO Dec 1976-2005/Dec(Updated 060404)

(c) 2006 JPO & JAPIO

File 350:Derwent WPIX 1963-2006/UD,UM &UP=200625

(c) 2006 Thomson Derwent

```
     10 PN=US 6835947 + PN=US 6841794 + PN=US 6852554 + PN=US
      6882100 + PN=US 6902458 + PN=US 6911768 + PN=US 6933517 +
      PN=WO 200289168 + PN=WO 200365425 + PN=WO 200373480 +
      PN=WO 200390243 + PN=WO 9806135
     16 S1:S5
S1    16 Serial: SD129
```

21apr06 10:29:42 User291227 Session D35.15

File 342:Derwent Patents Citation Indx 1978-05/200621

```

        6 CT=EP 1003195
        0 CT=CN 1254173
        6 CT=EP 1003195
        0 CT=JP 3112456
        6 CT=JP 2001155622
        0 CT=KR 2000035507
        0 CT=SG 86360
        1 CT=TW 436837
        11 CT=US 6285118
S2      20 CT=(EP 1003195 OR CN 1254173 OR EP 1003195 OR JP 3112456
        OR JP 2001155622 OR KR 2000035507 OR SG 86360 OR TW
        436837 OR US 6285118)

```

File 347:JAPIO Dec 1976-2005/Dec(Updated 060404)

(c) 2006 JPO & JAPIO

File 350:Derwent WPIX 1963-2006/UD,UM &UP=200625

(c) 2006 Thomson Derwent

```

        10 PN=US 6784621 + PN=US 6791248 + PN=US 6794805 + PN=US
        6815315 + PN=US 6815875 + PN=US 6844664 + PN=US 6852554 +
        PN=US 6902458 + PN=US 6939728 + PN=US 6940087 + PN=WO
        200013197 + PN=WO 200289166 + PN=WO 200289168 + PN=WO
        200373480
        1 PN=WO 200377320
        1 PN=WO 200396401
        2 PN=WO 200377320 + PN=WO 200396401

```

```

S1      59 S1:S12
S2      8 S1 AND EMITTER? ?

```

21apr06 10:34:23 User291227 Session D35.18

File 342:Derwent Patents Citation Indx 1978-05/200621

|    |   |   |
|----|---|---|
|    | 8 | CT=EP 1094485   |
|    | 1 | CT=JP 2001210224  |
|    | 0 | CT=CN 1293441   |
|    | 8 | CT=EP 1094485   |
|    | 1 | CT=JP 2001283717  |
|    | 0 | CT=SG 90185   |
|    | 0 | CT=TW 473758  |
| S1 | 8 | CT=(EP 1094485 OR JP 2001210224 OR CN 1293441 OR EP<br>1094485 OR JP 2001283717 OR SG 90185 OR TW 473758) |

File 347:JAPIO Dec 1976-2005/Dec(Updated 060404)

(c) 2006 JPO & JAPIO

File 350:Derwent WPIX 1963-2006/UD,UM &UP=200625

(c) 2006 Thomson Derwent

|    |    |  |
|----|----|--|
|    | 6  | PN=US 6558968 + PN=US 6707061 + PN=US 6753544 + PN=US<br>6844664 + PN=US 6902458 + PN=WO 200235572 + PN=WO<br>200289166 + PN=WO 200289168 + PN=WO 200315117 + PN=WO<br>200461891 |
|    | 24 | S1:S5  |
| S1 | 24 | S1:S5  |
| S2 | 10 | S1 AND EMITTER? ?  |

21apr06 10:42:21 User291227 Session D35.21

File 342:Derwent Patents Citation Indx 1978-05/200621

```

      10 CT=US 6204597
      0 CT=WO 200046834
      0 CT=TW 436844
      0 CT=EP 1153409
      0 CT=JP 2002536802
S1      10 CT=(US 6204597 OR WO 200046834 OR TW 436844 OR EP 1153409
      OR JP 2002536802)

```

File 347:JAPIO Dec 1976-2005/Dec(Updated 060404)

(c) 2006 JPO & JAPIO

File 350:Derwent WPIX 1963-2006/UD,UM &UP=200625

(c) 2006 Thomson Derwent

```

      9 PN=US 2004161929 + PN=US 2005059313 + PN=US 6445125 +
      PN=US 6580211 + PN=US 6624589 + PN=US 6848962 + PN=US
      6853126 + PN=US 6858990 + PN=US 6933664 + PN=US 6948995 +
      PN=US 6984535 + PN=WO 200167481 + PN=WO 200459713 + PN=WO
      200520266
      1 PN=WO 200520267
      17 S1:S5
S1      17 Serial: SD133
S2      5 S1 AND EMITTER? ?

```

21apr06 10:44:31 User291227 Session D35.23

File 342:Derwent Patents Citation Indx 1978-05/200621

```

      0 CT=CN 1128461
      2 CT=WO 9949492
      0 CT=AU 9928582
      0 CT=KR 99077954
      0 CT=CN 1301396
      0 CT=KR 284539
      0 CT=JP 2002517061
      2 CT=US 6727642
S1    4 CT=(CN 1128461 OR WO 9949492 OR AU 9928582 OR KR 99077954
      OR CN 1301396 OR KR 284539 OR JP 2002517061 OR US
      6727642)
```

File 347:JAPIO Dec 1976-2005/Dec(Updated 060404)

(c) 2006 JPO & JAPIO

File 350:Derwent WPIX 1963-2006/UD,UM &UP=200625

(c) 2006 Thomson Derwent

```

      3 PN=US 6972512 + PN=WO 200108192 + PN=WO 200108193
      5 S1:S2
S1    5 Serial: SD134
```

21apr06 10:45:56 User291227 Session D35.25

File 342:Derwent Patents Citation Indx 1978-05/200621

|    |    |  |
|----|----|--|
|    | 7  | CT=EP 1028458  |
|    | 1  | CT=JP 2000208508   |
|    | 0  | CT=KR 2000052627   |
|    | 0  | CT=TW 440970   |
|    | 10 | CT=US 6544875  |
| S1 | 18 | CT=(EP 1028458 OR JP 2000208508 OR KR 2000052627 OR TW 440970 OR US 6544875) |

File 347:JAPIO Dec 1976-2005/Dec(Updated 060404)

(c) 2006 JPO & JAPIO

File 350:Derwent WPIX 1963-2006/UD,UM &UP=200625

(c) 2006 Thomson Derwent

|    |    |  |
|----|----|--|
|    | 6  | PN=WO 200259956 + PN=WO 200282554 + PN=WO 200301605 +<br>PN=WO 200303471 + PN=WO 200490966 + PN=WO 200593126 |
|    | 26 | S1:S6  |
| S1 | 26 | Serial: SD135  |
| S2 | 1  | S1 AND EMITTER? ?  |



21apr06 10:47:44 User291227 Session D35.27

File 342:Derwent Patents Citation Indx 1978-05/200621

```

      2 CT=WO 9417546
      7 CT=EP 681311
      2 CT=JP 8510588
      0 CT=RU 2089004
      1 CT=RU 2097869
      9 CT=US 5965971
      5 CT=US 6023126
      7 CT=EP 681311
      0 CT=DE 69331709
      0 CT=KR 307384
S1    19 CT=(WO 9417546 OR EP 681311 OR JP 8510588 OR RU 2089004
      OR RU 2097869 OR US 5965971 OR US 6023126 OR EP 681311 OR
      DE 69331709 OR KR 307384)

```

File 347:JAPIO Dec 1976-2005/Dec(Updated 060404)

(c) 2006 JPO & JAPIO

File 350:Derwent WPIX 1963-2006/UD,UM &UP=200625

(c) 2006 Thomson Derwent

```

      10 PN=US 6762541 + PN=US 6794814 + PN=WO 200286931 + PN=WO
      200286934 + PN=WO 9417546 + PN=WO 9613848 + PN=WO 9636061
      + PN=WO 9638854 + PN=WO 9825287 + PN=WO 9949492
      28 S1:S6
S1    28 Serial: SD136
S2    14 S1 AND EMITTER? ?

```

21apr06 10:49:35 User291227 Session D35.29

File 342:Derwent Patents Citation Indx 1978-05/200621

```

      1 CT=US 6607930
      0 CT=WO 200131671
      0 CT=AU 200113475
      0 CT=US 20020146853
S1    1 CT=(US 6607930 OR WO 200131671 OR AU 200113475 OR US
      20020146853)
```

File 347:JAPIO Dec 1976-2005/Dec(Updated 060404)  
(c) 2006 JPO & JAPIO

File 350:Derwent WPIX 1963-2006/UD,UM &UP=200625  
(c) 2006 Thomson Derwent

```

      1 PN=US 2002173083 + PN=US 6706566
S1    1 Serial: SD137
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21apr06 10:52:09 User291227 Session D35.31

File 342:Derwent Patents Citation Indx 1978-05/200621

```

      5 CT=EP 545621
      0 CT=DE 69204629
      5 CT=EP 545621
      0 CT=JP 05242794
     18 CT=US 5430347
S1      23 CT=(EP 545621 OR DE 69204629 OR EP 545621 OR JP 05242794
      OR US 5430347)
```

File 347:JAPIO Dec 1976-2005/Dec(Updated 060404)

(c) 2006 JPO & JAPIO

File 350:Derwent WPIX 1963-2006/UD,UM &UP=200625

(c) 2006 Thomson Derwent

```

     10 PN=US 6255768 + PN=US 6297587 + PN=US 6373176 + PN=US
      6429596 + PN=US 6471838 + PN=US 6515407 + PN=US 6522053 +
      PN=US 6683414 + PN=WO 200046834 + PN=WO 200106531 + PN=WO
      200150491 + PN=WO 9428571 + PN=WO 9624152
```

```

S1      40 S1:S8
S2      16 S1 AND EMITTER? ?
```

21apr06 14:10:29 User291227 Session D36.1

SYSTEM:OS - DIALOG OneSearch

File 348:EUROPEAN PATENTS 1978-2006/ 200616

(c) 2006 European Patent Office

**\*File 348: For important information about IPCR/8 and forthcoming changes to the IC= index, see HELP NEWSIPCR.**

File 349:PCT FULLTEXT 1979-2006/UB=20060420,UT=20060413

(c) 2006 WIPO/Univentio

**\*File 349: For important information about IPCR/8 and forthcoming changes to the IC= index, see HELP NEWSIPCR.**

| Set | Items   | Description   |
|-----|---------|---|
| S1  | 45234   | EMITTER? ?  |
| S2  | 3164    | EMITTING () SIDE? ? OR EMITTING () SURFACE? ?                                       |
| S3  | 71796   | CATHODE? ?  |
| S4  | 1694170 | LAYER???? OR DISPOS????? OR COAT???? OR FINISH????                                  |
| S5  | 968604  | CHAMBER? ? OR SPACE OR CAVIT????? OR OPENING? ?                                     |
| S6  | 1707607 | INTERFAC???? OR CONNECT???? OR FORMED OR JOINT? ? OR JOIN???                        |
| S7  | 1290247 | FASTEN???? OR ARRANG????? OR PLACED OR PLACING OR PLACEMENT? ?                      |
| S8  | 677743  | PARALLEL OR EQUIDISTAN???? OR EQUALLY () DISTAN???? OR DISTANCE (2N)<br>APART       |
| S9  | 1184581 | SIDEWALL? ? OR WALL? ? OR SIDE? ?   |
| S10 | 1305022 | HEIGHT? ? OR WIDTH? ? OR DIMENSION? ? OR SIZE? ? OR DISTANCE? ?                     |
| S11 | 1343238 | AREA? ? OR LENGTH? ? OR RATIO OR RATIOS OR TRAPEZOID????                            |
| S14 | 300777  | SLANTING OR SLOP???? OR DIAGONAL??? OR INCLIN???? OR DECLIN????                     |
| S15 | 597342  | SMALLER OR SHORTER  |
| S16 | 1289208 | LARGER OR DIVERG???? OR BIGGER OR GREATER OR LONGER OR TALLER OR HIGHER<br>OR WIDER |
| S17 | 73      | S3 (2N) S4 AND (S1 OR S2)   |
| S18 | 18      | S17 AND S5  |
| S19 | 210057  | HOLLOW? OR TUNNEL?  |
| S20 | 18      | S17 AND S19   |
| S21 | 6       | S20 NOT S18   |
| S22 | 6       | S17 (6N) S9   |
| S26 | 273390  | (S5 OR S19)   |
| S28 | 393499  | S10 OR S11  |
| S29 | 335190  | FIRST OR SECOND OR 1ST OR 2ND   |
| S30 | 167945  | PAIR? ? OR ANOTHER  |
| S31 | 464477  | S29 OR S30  |
| S32 | 783172  | S6 OR S7  |
| S33 | 42819   | S26 (4N) S32  |
| S34 | 464477  | S29 OR S30  |
| S36 | 4403    | S33 (5N) S34  |
| S37 | 11      | S36 AND S1  |
| S38 | 62774   | S14 OR S15  |
| S39 | 174082  | S38 OR S16  |

SYSTEM:OS - DIALOG OneSearch

File 348:EUROPEAN PATENTS 1978-2006/ 200616

(c) 2006 European Patent Office

\*File 348: For important information about IPCR/8 and forthcoming changes to the IC= index, see HELP NEWSIPCR.

File 349:PCT FULLTEXT 1979-2006/UB=20060420,UT=20060413

(c) 2006 WIPO/Univentio

\*File 349: For important information about IPCR/8 and forthcoming changes to the IC= index, see HELP NEWSIPCR.

| Set | Items   | Description  |
|-----|---------|--|
| S1  | 17280   | (EMITTER? ?)/TI,AB,CM  |
| S2  | 25288   | (CATHODE? ?)/TI,AB,CM  |
| S3  | 1265313 | (LAYER???? OR DISPOS????? OR COAT???? OR FINISH????)/TI,AB,CM                                  |
| S4  | 483623  | (CHAMBER? ? OR SPACE OR CAVIT????? OR OPENING? ?)/TI,AB,CM                                     |
| S5  | 1113443 | (INTERFAC???? OR CONNECT???? OR FORMED OR JOINT? ? OR JOIN????)/TI,AB,CM                       |
| S6  | 635548  | (FASTEN???? OR ARRANG????? OR PLACED OR PLACING OR PLACEMENT? ?)/TI,AB,CM                      |
| S7  | 1328019 | S5 OR S6   |
| S8  | 583562  | (SIDEWALL? ? OR WALL? ? OR SIDE? ?)/TI,AB,CM   |
| S9  | 88064   | (HOLLOW? OR TUNNEL?)/TI,AB,CM  |
| S10 | 527291  | S9 OR S4   |
| S11 | 542024  | (HEIGHT? ? OR WIDTH? ? OR DIMENSION? ? OR SIZE? ? OR DISTANCE? ?)<br>/TI,AB,CM                 |
| S12 | 586636  | (AREA? ? OR LENGTH? ? OR RATIO OR RATIOS OR TRAPEZOID????)/TI,AB,CM                            |
| S13 | 907203  | S11 OR S12   |
| S14 | 116517  | (SMALLER OR SHORTER)/TI,AB,CM  |
| S15 | 412215  | (LARGER OR DIVERG???? OR BIGGER OR GREATER OR LONGER OR TALLER OR HIGHER<br>OR WIDER)/TI,AB,CM |
| S16 | 101690  | (SLANTING OR SLOP???? OR DIAGONAL??? OR INCLIN???? OR DECLIN????)<br>/TI,AB,CM                 |
| S17 | 1082748 | (FIRST OR SECOND OR 1ST OR 2ND OR PAIR OR ANOTHER)/TI,AB,CM                                    |
| S19 | 527291  | S4 OR S9   |
| S20 | 98      | S2 (3N) S8 AND S1  |
| S21 | 25      | S20 AND S19  |
| S22 | 1624    | S1 AND S2  |
| S23 | 347     | S22 AND S19  |
| S24 | 465811  | S14 OR S15   |
| S25 | 534745  | S24 OR S16   |
| S26 | 906924  | S25 OR S12   |
| S27 | 113669  | S17 (3N) S26   |
| S28 | 52      | S27 AND S23  |
| S29 | 34      | S28 AND PY<=2001   |
| S30 | 278003  | S17 (3N) S7  |
| S31 | 19827   | S30 (5N) S19   |
| S32 | 134     | S31 AND S1   |
| S33 | 10      | S31 (8N) S1  |
| S34 | 1124101 | S25 OR S13   |
| S35 | 149330  | S34 (3N) S17   |
| S36 | 67      | S35 AND S23  |
| S37 | 46      | S36 AND PY<=2001   |